

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Ag 84 L
cop 2

How to use

whole and nonfat

DRY MILK



U. S. Department of Agriculture

Leaflet No. 275, formerly AIS-86

How much milk do you need?

Without plenty of milk in some form it's hard to keep well nourished. Milk offers top-notch protein, B vitamins, minerals—particularly calcium, needed for strong bones and good teeth.

Many nutritionists now agree that adults of all ages, as well as children, benefit by getting more calcium than just barely enough for immediate needs.

You can be fairly sure of getting enough calcium in your diet if you use the amounts of milk given below:

Children: 5 to 7 quarts a week (3 to 4 cups a day).

Adults: 5 quarts a week (about 3 cups a day).

Pregnant women: 7½ quarts a week.

Nursing mothers: 10½ quarts a week.

How much food value do whole and nonfat dry milk provide?

If you are using milk powder, it's easy to figure how much milk each recipe gives your family or any one member. The table on page 4 is a guide. For example, if a recipe uses ½ cup whole dry milk, it has the nourishment contained in a pint of whole fluid milk; ½ cup nonfat dry milk can be counted as a pint of skim milk in food value.

BUREAU OF HUMAN NUTRITION AND HOME
ECONOMICS

Agricultural Research Administration

U. S. Department of Agriculture, October 1949

Prepared by Mary T. Swickard

Dry Milk

whole and nonfat



Dry milk products are excellent foods that can help families get enough milk for good health.

Dry milk products are put up in two forms: Nonfat dry milk solids (commonly called nonfat dry milk) and whole dry milk. These powdered milks are made respectively from skim and whole milk with just the water removed.

Nonfat dry milk has all the nourishment of fresh skim milk. It has the calcium and other minerals, and B vitamins, natural sugar, and high-quality protein that make liquid skim milk such valuable food. Whole dry milk has, in addition, the fat and the vitamin A value of the cream portion of whole milk.

In some places nonfat milk powder may be the least expensive milk product available.

Milk powder is handy

Dry milk products are easy to carry home and take little storage space. A pound package—about 4 cups—equals about 4 quarts of whole or skim fluid milk. Milk powders are convenient to have on hand—save many an emergency trip to the store.

Easy to measure and mix

When you open the container, stir powder with a spoon, and lightly take up the amount wanted. Don't pack down the powder. Level it with a spatula or straight-edged knife.

In most recipes milk powder can be used right out of the container—sifted with dry ingredients for cakes and breads . . . stirred into flour for gravy or sauce . . . mixed with cornstarch and sugar for puddings.

Milk powder can be mixed quickly with water to make fluid milk to use just like any other fluid milk. Start by putting the powder on top of the water. Then beat with a rotary beater or stir with a spoon until smooth. Or shake the water and powder together in a tightly closed jar. You can speed mixing a little by having the water warm (not hot).

This table shows how much milk powder to use to replace various amounts of bottled milk.

<i>For</i>	<i>Use</i>
1 quart milk.....	1 cup powder, 4 cups water.
1 pint milk.....	$\frac{1}{2}$ cup powder, 2 cups water.
1 cup milk.....	$\frac{1}{4}$ cup powder, 1 cup water.
$\frac{1}{2}$ cup milk.....	2 tablespoons powder, $\frac{1}{2}$ cup water.
$\frac{1}{4}$ cup milk.....	1 tablespoon powder, $\frac{1}{4}$ cup water.

How to store

Store milk powder in a cool dry place, preferably not warmer than 75° F. It will keep this way on a shelf several months. The nonfat dry milk keeps somewhat better than the whole milk powder.

If you put milk powder in the refrigerator, transfer it to an airtight jar or can.

Whenever these products are stored, be sure to keep the container tightly covered. Close it right after use. Milk powder takes up moisture and gets lumpy if exposed long to air.

Fluid milk made from milk powder and water needs to be kept cool, clean, and covered, just like any other fluid milk. Keep it in the refrigerator, if it is not used right after mixing.

Using milk powder in recipes

You can use milk powder in any recipe calling for milk. Follow the table above. For example if you need 1 cup milk, measure $\frac{1}{4}$ cup milk powder and 1 cup water. Mix the powder with the dry ingredients and add the water with the other liquids, or make the powder into fluid milk.

As a rule, you can replace fluid milk in a recipe with either nonfat or whole milk powder. But if you need whole milk and are using nonfat dry milk, add a little table fat to the recipe—about 2½ tablespoons for each quart of milk, about 2 teaspoons for each cup.

You can use either nonfat or whole dry milk in the recipes in this booklet, except in three that call for the nonfat product only (prune whip, ice box dessert, whipped topping).



To get more milk into meals

When it's a problem to use all the milk the family needs, dry milk products can help. You can—

- Add milk powder to fluid milk and milk beverages, to put extra nourishment into a cupful.

- Use as much as ½ to ¾ cup of milk powder to 1 cup of liquid in preparing soups, cereals, and other foods. This makes them at least twice as rich in milk as dishes made with fluid milk—comparing nonfat dry milk with skim milk and whole dry milk with whole milk. Many recipes in this booklet show how to add extra milk in this way.

Baking tip

In baking, if you use an extra amount of either powder in a recipe for added nourishment, you can expect richer browning.

SOUPS

Favorites for lunch and supper are cream-style soups and milk chowders—and you can make them even more nourishing by using dry milk products. In recipes like the following, which call for a good deal of milk, be sure to keep the cooking temperature low.

Cream of potato soup

2½ cups cubed potatoes	1 tablespoon flour
1 tablespoon chopped onion	4 cups liquid (cooking liquid from vegetables plus water or fluid milk)
1½ teaspoons salt	2 tablespoons table fat
1 cup dry milk, whole or nonfat	

Cover potatoes and onion with boiling water. Add salt and cook, covered, until tender. Drain, and save cooking liquid.

Mash potatoes or put through a sieve.

Add milk powder and flour to liquid. Beat until smooth. Add fat.

Cook over low heat or boiling water until slightly thickened—about 15 minutes, stirring as necessary to prevent sticking and lumping.

Combine with potatoes and reheat.

Six servings.

Cream of onion soup.—Use 2½ cups finely sliced onion instead of the potatoes. Do not put onion through sieve.

Fish chowder

1 cup diced potatoes	1½ tablespoons flour
½ cup diced carrots	2 cups liquid (cooking liquid from vegetables plus water or fluid milk)
2 tablespoons diced salt pork	½ pound (2 cups) flaked cooked fish
1 tablespoon chopped onion	
½ cup dry milk, whole or nonfat	

Cook potatoes and carrots until tender in enough boiling salted water to cover. Drain and save cooking liquid.

Fry salt pork until crisp, adding onion for the last few minutes of cooking.

Add milk powder and flour to the liquid and beat until smooth. Cook over low heat, stirring constantly, until slightly thickened.

Combine all ingredients, heat thoroughly.

Makes about 4 cups.

Good chowder fish are rosefish, cod, haddock, halibut, croaker, carp, pike, and sea trout.

Canned or packaged soup, cream style

Add fluid milk or water to the soup, if directions on the container call for it. Then, for each cupful of liquid used, add $\frac{1}{4}$ cup dry milk, whole or nonfat. Beat with a rotary beater until smooth. Heat thoroughly.

MAIN DISHES'

Dry milk products go well in main dish cookery because you can have the benefits of extra milk without adding unneeded liquid.

Ham shortcake

2½ cups water or ham cooking liquid	1½ cups diced cooked ham
½ cup dry milk, whole or nonfat	2 hard-cooked eggs, sliced
4 tablespoons flour	2 tablespoons coarsely chopped parsley
¼ cup table fat or ham fat	Salt and pepper to taste
	Corn bread or biscuits

For added milk value: Use 1 cup milk powder and 3 tablespoons flour, in place of amounts given above.

Put the liquid into a saucepan, add milk powder and flour, and beat until smooth.

Add fat and cook over low heat or boiling water until thickened, stirring as necessary to prevent sticking and lumping.

Add ham, eggs, and parsley. Season with salt and pepper. Heat through. Serve on split corn bread, plain or toasted, or biscuits.

Six servings.

Meat loaf

2 pounds ground lean beef	2 tablespoons finely chopped onion
¼ pound ground suet or salt pork	1½ teaspoons salt
1 egg, slightly beaten	⅛ teaspoon dry mustard, if desired
1 cup canned or cooked tomatoes (or thin tomato soup or catsup)	½ cup dry milk, whole or nonfat
2 cups coarse dry crumbs	

For added milk value: Use 1 cup milk powder, in place of amount given above.

Put all ingredients into bowl in order given. Mix well. The mixture will be sticky.

Shape into a loaf in a shallow pan.

Bake uncovered in a moderate oven (350° F.) about 1½ hours.

Eight servings.

Ham loaf.—Instead of the beef, use 1 pound ground smoked ham and 1 pound ground veal or beef. Omit suet or salt pork and salt.

Meat and vegetable stew

1 pound lean beef, cut in ½ inch cubes	4 carrots, diced
Flour	1 cup green beans (or 2 turnips, diced)
Fat or drippings	1½ teaspoons salt
2 cups water	Pepper
2 onions, sliced	½ cup dry milk, whole or nonfat
4 potatoes, diced	

Roll meat in flour and brown on all sides in fat or drippings.

Add water to meat, cover, and simmer until almost tender.

Add vegetables and seasonings and continue to simmer, covered, until vegetables are tender.

Add a little more boiling water if needed to make the desired amount of liquid.

Add milk powder and 1 tablespoon flour to about ¼ cup water or enough to make a smooth thin paste. Add several spoonfuls of hot liquid from the stew. Stir milk and flour mixture into stew and cook slowly until thickened.

Six servings.

Beef or lamb patties

2½ cups cooked tomatoes, or No. 2 can	2 tablespoons finely chopped onion
1 pound ground beef or lamb	½ cup dry milk, whole or nonfat
1 cup left-over mashed po- tatoes	Flour
	Fat
1 teaspoon salt	

For added milk value: Use 1 cup milk powder, in place of amount given above.

Use ½ cup drained tomatoes and save the rest for the gravy (see tomato sauce or gravy, p. 13). Combine all ingredients except flour and fat; mix well. The mixture will be sticky.

Make into patties. Roll in flour and fry slowly in a little fat; brown on both sides.

Makes 12 large patties.

Puffy Spanish omelet

½ cup chopped onion	½ cup drained canned or cooked tomatoes
1 small green pepper, chopped	½ cup dry milk, whole or nonfat
½ cup chopped celery	1 tablespoon fat
4 eggs, separated	Pepper
1 teaspoon salt	

Combine onion, green pepper, and celery. Cook in a small amount of boiling water until tender. Drain if any liquid remains.

To the egg yolks add salt, tomatoes, and milk powder. Beat well.

Beat egg whites until stiff but not dry. Gradually fold in the beaten egg yolk mixture and then the cooked vegetables.

Pour into a hot frying pan containing the melted fat. Sprinkle with pepper.

Cook over low heat until lightly browned on the bottom—about 10 minutes. Bake in a moderate oven (350° F.) until browned on top—10 to 15 minutes.

Crease omelet through the center, fold over, and roll onto a hot platter.

Six servings.

Scrambled eggs

Break the desired number of eggs into a bowl. For each egg add 2 tablespoons water or fluid milk, 1 tablespoon dry milk, whole or nonfat, and a little salt and pepper.

Beat until smooth.

Pour the mixture into a frying pan containing melted fat. Cook slowly, stirring until done.

Creamed eggs

2 cups water or fluid milk	Pepper
½ cup dry milk, whole or nonfat	¼ cup fat
4 tablespoons flour	6 hard-cooked eggs, quartered
1 teaspoon salt	

For added milk value: Use 1 cup milk powder and 2 tablespoons flour, in place of amounts given above.

Put the liquid into a pan, add all dry ingredients, and beat until smooth.

Add fat; cook over low heat or boiling water until thickened, stirring as necessary to prevent sticking and lumping.

Add eggs; heat thoroughly. Serve on toast. If desired, garnish with paprika or parsley.

Six servings.

Cheese fondue

2 cups soft bread crumbs	1 teaspoon salt
1½ cups grated cheese	3 cups water or fluid milk
½ cup dry milk, whole or nonfat	1 tablespoon fat, melted
	4 eggs, beaten

For added milk value: Use 1 cup milk powder in place of amount given above.

Combine bread crumbs, cheese, milk powder, and salt. Mix thoroughly. Add liquid and fat. Stir until milk powder is dissolved.

Stir the mixture into the eggs.

Pour into greased baking dish. Bake in moderate oven (350° F.) until set—about 30 minutes.

Six servings.

Welsh rabbit

2 cups water or fluid milk	1/2 teaspoon salt
1/2 cup dry milk, whole or nonfat	4 tablespoons fat
4 tablespoons flour	2 cups grated cheese
	1 egg, beaten

For added milk value: Use 1 cup milk powder and 3 tablespoons flour, in place of amounts given above.

Put the liquid into a pan, add all dry ingredients, and beat until smooth. Add fat.

Cook over low heat or boiling water until thickened, stirring as necessary to prevent sticking and lumping. Remove from heat.

Add cheese and stir until it melts.

Stir a little of the sauce into egg. Pour back into pan and cook 2 or 3 minutes longer.

Serve on toast or crackers. Six servings.

Macaroni, cheese, and eggs

1/2 cup macaroni, broken into pieces	1/2 teaspoon salt
1 1/2 cups water or fluid milk	1 1/2 tablespoons fat
1/3 cup dry milk, whole or nonfat	1 1/2 cups grated cheese
2 tablespoons flour	4 hard-cooked eggs, sliced
	Crumbs mixed with melted fat

For added milk value: Use 2/3 cup milk powder and 1 1/2 tablespoons flour, in place of amounts given above.

Cook the macaroni in boiling salted water until tender. Drain; discard cooking water.

Put the 1 1/2 cups water or fluid milk into a pan; add milk powder, flour, and salt. Beat until smooth.

Add fat and cook over very low heat or boiling water until thickened, stirring as necessary to prevent sticking and lumping.

Remove from heat and stir in the cheese.

Place macaroni in a greased baking dish, cover with the eggs, and add the cheese sauce. Sprinkle crumbs over top. Brown in moderate oven (350° F.) about 20 minutes. Six servings.

SAUCES

Sauces give variety to many a familiar vegetable and to meats. When made with milk, a sauce also does its share in meeting the family's milk needs. Dry milk products offer a way to make sauces extra rich in milk value and to put milk into gravies made with meat broth, without diluting the meat flavor.

White sauce

<i>Ingredients</i>	<i>Thin</i>	<i>Me- dium</i>	<i>Thick</i>
Fluid milk or water.....cup	1	1	1
Dry milk, whole or nonfat.....cup	1/4	1/4	1/4
Flour.....tablespoons	1	2	3
Saltteaspoon	1/4	1/4	1/4
Fattablespoons	1	2	3

For added milk value: In medium white sauce use 1/2 cup milk powder and 1 tablespoon flour, in place of amounts given above. In thick sauce use 1/2 cup milk powder and 2 tablespoons flour.

Method 1.—Pour liquid into a pan. Add dry ingredients. Beat until smooth. Add fat and cook over low heat or boiling water until thickened, stirring constantly.

Method 2.—Melt fat. Remove from heat and blend in flour, then milk powder and salt. Add liquid all at once and stir until mixed. Cook as in Method 1. This method is for medium and thick white sauces only, since they have enough fat to moisten the dry ingredients.

Makes 1 cup.

Cheese sauce.—Add 1/2 cup grated cheese to white sauce after it is cooked. Stir until cheese is melted.

Parsley sauce.—To 1 cup medium white sauce add 2 or more tablespoons finely chopped parsley. Season with a few drops onion juice.

Egg sauce.—To 1 cup medium white sauce add 1 or 2 hard-cooked eggs, coarsely chopped.

Tomato sauce or gravy

1/4 cup sliced onion	2 tablespoons flour
2 tablespoons fat or drippings	2 cups cooked tomatoes and juice
1/4 cup dry milk, whole or nonfat	Salt and pepper

For added milk value: Use 1/3 cup milk powder and 1 1/2 tablespoons flour, in place of amounts given above.

Cook onion in fat until very tender.

Mix milk powder and flour thoroughly; add tomatoes (chopped or put through a sieve, if desired), gradually stirring until smooth.

Add to cooked onion and cook over low heat or boiling water until mixture thickens, stirring constantly. Season with salt and pepper.

Add water to make a thinner sauce if desired.

Six servings.

VEGETABLE DISHES

Milk can help you serve vegetables in varied ways, such as croquettes, fritters, and scalloped dishes. By using dry milk products you can build up these dishes nutritionally to include some high-quality protein as well as extra minerals and vitamins.

Vegetable croquettes

2 cups cooked vegetables, well drained	1 egg, beaten
1 cup thick white sauce (see p. 12)	Fine crumbs
	Fat

Mix the vegetables (such as peas, carrots and peas, or whole kernel corn) and white sauce and chill thoroughly.

Shape into six croquettes. Dip in egg and in crumbs.

Fry in deep fat (375° to 390° F.) or brown in about an inch of hot fat in a frying pan; turn to brown on all sides. Drain on paper.

Six servings.

Asparagus scallop

3 slices bacon	1/4 cup dry milk, whole or nonfat
1 cup bread cubes	1 cup grated cheese
1 cup liquid (asparagus liquid plus water or fluid milk)	1 No. 2 can asparagus or 1 pound fresh asparagus, cooked
1 tablespoon flour	

For added milk value: Use 1/2 cup milk powder and 1/2 tablespoon flour, in place of amounts given above.

Fry bacon until crisp. Remove bacon and take pan from heat.

Mix 1 tablespoon of the drippings with the bread cubes.

Stir liquid into remaining bacon drippings. Add flour and milk powder, beat until smooth.

Cook over low heat or boiling water until thickened, stirring constantly.

Remove from heat and stir in the cheese. Break bacon into bits and add to the sauce.

Arrange the drained asparagus in a greased baking dish. Pour the sauce over it and top with bread cubes.

Bake in a moderate oven (350° F.) until cubes are browned—about 20 minutes.

Six servings.

Corn fritters

1 cup sifted flour	2 tablespoons dry milk, whole or nonfat
1 1/2 teaspoons baking powder	2 cups drained cooked or canned whole kernel corn (No. 2 can)
1/2 teaspoon salt	2 teaspoons melted fat
1 tablespoon sugar	Fat for frying, 1 inch deep in pan
1 egg	
1/2 cup water or fluid milk	

For added milk value: Use 1/2 cup milk powder, in place of amount given above.

Sift together flour, baking powder, salt, and sugar.

Break egg into a bowl, add liquid, then milk powder. Beat until smooth.

Add to dry ingredients and mix until free from lumps. Stir in corn, add melted fat.

Drop by spoonfuls into hot fat. Fry 2 to 3 minutes, turning to brown on both sides. Remove from fat and drain on absorbent paper.

Makes 14 large fritters.

Fruit fritters.—Instead of the corn, use 2 cups chopped bananas, apples, or pineapple. Sprinkle the cooked fritters with confectioners' sugar, and serve as a dessert.

Corn pudding

3 eggs	2 cups drained cooked or
2 cups liquid (corn liquid	canned whole kernel corn
plus water or fluid milk)	(No. 2 can)
½ cup dry milk, whole or	1 teaspoon salt
nonfat	Pepper
2 tablespoons melted fat	

For added milk value: Use 1 cup milk powder in place of amount given above.

Combine eggs and liquid, and add milk powder. Beat until smooth.

Stir in melted fat, corn (chopped if preferred) and seasonings.

Pour into a greased baking dish and bake in a moderate oven (350° F.) until set—about 50 minutes.

Six servings.

With other vegetables.—Use 2 cups drained cooked or canned mixed vegetables. Snap beans, carrots, green limas, peas, or asparagus—alone or in combination—are good choices.

Creamed vegetables

For six servings use 3 cups diced cooked vegetables and 1 to 1½ cups thin or medium white sauce (see p. 12). The thin sauce is usually preferred with vegetables such as potatoes and peas that have some thickening power of their own.

Add the vegetables to the hot sauce. Heat thoroughly over low heat or boiling water.

Potato cakes

2 cups seasoned mashed potatoes	1 egg, if desired Salt and pepper
½ cup dry milk, whole or nonfat	2 teaspoons minced onion

Combine ingredients in the order named and mix well.

Make into cakes and brown on both sides in a little hot fat in a frying pan.

Makes about 12 cakes.

BREADS

Breads often contain less than 1 cup fluid milk to each cup of flour. Using milk powder, you can put much more milk nourishment into these products. The muffin and griddlecake recipes given here can contain twice as much milk as usual.

Muffins

2 cups sifted flour	2 tablespoons sugar
¼ cup dry milk, whole or nonfat	1 egg, beaten
3 teaspoons baking powder	1 cup water or fluid milk
½ teaspoon salt	3 tablespoons melted fat

For added milk value: Use ½ cup milk powder, in place of amount given above.

Sift dry ingredients together.

Combine egg, water or fluid milk, and fat. Add to the dry ingredients all at once, stirring just enough to moisten dry ingredients and give the mixture a rough appearance.

Fill greased muffin pans two-thirds full.

Bake in a hot oven (400° to 425° F.) about 20 minutes. Makes 1 dozen muffins.

Cheese muffins.—Add ½ cup grated cheese to the sifted dry ingredients. Mix and bake as above.

For a recipe for muffins using quick bread mix, see page 19.

Biscuits

2 cups sifted flour	1/4 cup fat
2 teaspoons baking powder	About 3/4 cup water or fluid milk
3/4 teaspoon salt	
1/4 cup dry milk, whole or nonfat	

Sift dry ingredients together. Cut or rub in the fat.

Add water or fluid milk gradually, stirring until dry ingredients are moistened and a soft dough is formed.

Turn dough onto a lightly floured board or pastry cloth and knead a few times.

Pat out or roll to the desired thickness and cut with a floured cutter.

Bake in a hot oven (450° F.) until brown on top—12 to 15 minutes.

Makes 16 biscuits.

For a biscuit mix that can be made in quantity and stored, see page 18.

Waffles

1 1/2 cups sifted flour	1 tablespoon sugar
1/4 cup dry milk, whole or nonfat	2 eggs, separated
2 teaspoons baking powder	1 1/4 cups water or fluid milk
1/2 teaspoon salt	1/4 cup melted fat

For added milk value: Use 1/2 cup milk powder, in place of amount given above.

Sift dry ingredients together.

Beat egg yolks; add water or fluid milk and melted fat. Add to dry ingredients all at once, stirring just enough to moisten dry ingredients and give mixture a rough appearance.

Beat egg whites until stiff but not dry. Fold into the batter.

Bake in a hot waffle iron. Batter made with 1/2 cup milk powder needs a slightly cooler iron than that containing only 1/4 cup.

Makes 4 waffles.

For a recipe for waffles using quick bread mix, see page 19.

Griddlecakes

1 1/4 cups sifted flour	1/2 teaspoon salt
1 to 2 tablespoons sugar	1 egg, beaten
1/4 cup dry milk, whole or nonfat	1 cup water or fluid milk
2 teaspoons baking powder	2 tablespoons fat, melted

For added milk value: Use 1/2 cup milk powder in place of amount given above.

Sift dry ingredients together.

Combine egg, water or fluid milk, and fat. Add to dry ingredients all at once, stirring until only very small lumps remain.

Drop batter by spoonfuls onto a hot greased griddle. Cook slowly until surface is covered with bubbles, turn, and brown on bottom.

Makes 12 medium-sized griddlecakes.

For a recipe for griddlecakes using quick bread mix, see page 19.

DRY MIXES

Following are some recipes for dry mixes—modern time-and-trouble savers. They can be made when convenient, stored in the cupboard, used as needed. They are inexpensive when you think how much milk they put into your foods.

Biscuit mix

8 cups sifted flour	3 teaspoons salt
1 cup dry milk, whole or nonfat	1 cup fat (a kind that needs no refrigeration)
1/4 cup baking powder	

Sift dry ingredients together three times; cut or rub in fat until thoroughly mixed.

Lift mix lightly into glass jars or tin cans. Do not pack. Close tightly and store on shelf.

Use the biscuit mix for—

Biscuits.—To 1 cup mix, add about 1/3 cup water or fluid milk—enough to make a soft dough. Turn onto a lightly floured board or

pastry cloth and knead a few times. Pat or roll to the desired thickness and cut with a floured cutter. Bake in a hot oven (450° F.) 12 to 15 minutes. Makes 6 medium-sized biscuits.

Shortcakes.—To 1 cup mix, add 1 tablespoon sugar; cut in 1 tablespoon fat. Add water or fluid milk (about $\frac{1}{3}$ cup) to make a soft dough.

Roll $\frac{1}{4}$ inch thick and cut. Brush half the pieces with melted fat, and cover each with one of the remaining pieces. Bake in a hot oven (425° F.) 12 to 15 minutes. Makes 6 medium-sized shortcakes.

Quick bread mix

6 cups sifted flour	2 teaspoons salt
1 cup dry milk, whole or nonfat	$\frac{1}{2}$ cup sugar
$\frac{1}{4}$ cup baking powder	$\frac{3}{4}$ cup fat (a kind that needs no refrigeration)

For added milk value: Use 2 cups milk powder, in place of amount given above.

Sift dry ingredients together three times; cut or rub in fat until thoroughly mixed.

Lift mix lightly into glass jars or tin cans. Do not pack. Close tightly and store on shelf.

Use the quick bread mix for—

Muffins.—To 1 cup mix, add $\frac{1}{3}$ cup water or fluid milk and 1 beaten egg. Fill greased muffin pans two-thirds full. Bake in hot oven (400° to 425° F.) about 20 minutes. Makes 5 small muffins.

Waffles.—To 1 cup mix, add $\frac{3}{4}$ cup water or fluid milk and 1 beaten egg yolk. Fold in 1 beaten egg white. Bake in hot waffle iron. Makes 2 large waffles.

Griddlecakes.—To 1 cup mix, add $\frac{2}{3}$ to 1 cup water or fluid milk and 1 beaten egg. Drop batter by spoonfuls onto a hot greased griddle. Cook slowly until surface is covered with bubbles, turn, and brown on bottom. Makes 7 medium-sized griddlecakes.

Chocolate pudding mix

1 $\frac{1}{3}$ cups sifted flour	2 teaspoons salt
2 cups dry milk, whole or nonfat	2 cups sugar
	2 cups cocoa

For added milk value: Use 4 cups milk powder and $\frac{3}{4}$ cup flour, in place of amounts given above.

Mix all ingredients thoroughly and sift three times.

Put into glass or metal containers. Close containers tightly and store on shelf.

Use the chocolate pudding mix for—

Pudding.—To 1 cup mix, add 1 $\frac{1}{2}$ cups water or fluid milk. Cook over boiling water 15 minutes, stirring constantly. Add 1 tablespoon fat and $\frac{1}{2}$ teaspoon vanilla after the pudding is cooked. Makes 3 small puddings.

Sauce.—To 1 cup mix, add 2 cups water or fluid milk and $\frac{1}{4}$ cup sugar. Cook over boiling water 15 minutes; stir constantly. Add 2 tablespoons fat and $\frac{1}{2}$ teaspoon vanilla after sauce is cooked. Makes about 2 cups.

DESSERTS AND DESSERT SAUCES

A dessert may be just flavor and calories. Or, it may have these and vitamins, minerals, and protein, too. Here are desserts that include milk and score well in the latter group.

Prune whip

1 $\frac{1}{2}$ tablespoons lemon juice	1 $\frac{1}{2}$ cups chopped cooked prunes
$\frac{1}{3}$ cup water	
$\frac{1}{3}$ cup nonfat milk powder	3 tablespoons sugar
	$\frac{1}{8}$ teaspoon salt

Put lemon juice and water into a bowl; add nonfat milk powder. Beat until very stiff.

Stir in the prunes, sugar, and salt, and continue beating until well blended.

Six servings.

Maple rice pudding

1/3 cup rice	1 tablespoon gelatin
1/4 teaspoon salt	1/4 cup granulated sugar
2 cups boiling water	1/4 cup brown sugar, firmly packed
3/4 cup dry milk, whole or nonfat	2 tablespoons table fat
1 1/2 cups water or fluid milk	Maple flavoring to taste

Stir rice and salt in the 2 cups boiling water and simmer 1 hour, stirring as necessary to prevent sticking.

Meanwhile, add milk powder to 1 cup of the water or fluid milk and beat until smooth.

Add to rice and cook slowly about 10 minutes longer.

Pour gelatin into remaining 1/2 cup water or milk and soak a few minutes.

Remove rice mixture from heat and stir in the soaked gelatin, sugar, fat, and flavoring.

Cool until slightly thickened. Pour into molds and chill until well set.

Serve plain or with whipped topping (p. 31).

Six servings.

Chocolate pudding

1/2 cup sugar	1/2 teaspoon salt
1/2 cup dry milk, whole or nonfat	2 1/2 cups water or fluid milk
1/3 cup flour	2 tablespoons table fat
1/2 cup cocoa	1/2 teaspoon vanilla

For added milk value: Use 1 cup milk powder and 3 tablespoons flour, in place of amounts given above.

Mix dry ingredients well, and sift.

Add liquid gradually, stirring until smooth.

Cook over boiling water 15 minutes, stirring constantly.

Remove from heat; add fat and vanilla. Cool.

Six servings.

For a chocolate pudding mix that can be made in quantity and stored, see page 20.

Baked custards

3 eggs	$\frac{1}{3}$ cup sugar
3 cups water or fluid milk	$\frac{1}{4}$ teaspoon salt
$\frac{3}{4}$ cup dry milk, whole or nonfat	1 teaspoon vanilla

For added milk value: Use $1\frac{1}{2}$ cups milk powder, in place of amount given above.

Break eggs into a saucepan. Add liquid, then add remaining ingredients. Beat until smooth.

Heat to lukewarm. Pour into custard cups and set in a pan of hot water.

Cook in a moderate oven (325° F.) until set—55 minutes for $\frac{3}{4}$ cup milk powder; 35 minutes for $1\frac{1}{2}$ cups.

Makes 9 small custards.

Banana cream pie

2 cups water or fluid milk	2 egg yolks, beaten
$\frac{1}{2}$ cup dry milk, whole or nonfat	2 tablespoons fat
5 tablespoons flour	$\frac{1}{2}$ teaspoon vanilla
$\frac{1}{3}$ cup sugar	2 large bananas, sliced
$\frac{1}{4}$ teaspoon salt	1 baked 9-inch pie shell

For added milk value: Use 1 cup milk powder and 3 tablespoons flour, in place of amounts given above.

Put the liquid into a pan. Add milk powder, flour, sugar, and salt. Beat until smooth.

Cook over low heat or boiling water until thickened, stirring to prevent lumping.

Pour part of the hot mixture into beaten egg yolks, then pour all back into pan and cook 2 minutes longer.

Add fat and vanilla and cool.

Pour part of mixture into the pie shell, add sliced bananas, and cover with remaining filling. Top with meringue (p. 23).

Bake in a moderate oven (325° F.) until lightly browned—about 15 minutes.

Meringue

2 egg whites
Pinch salt

1/4 cup sugar

Beat egg whites and salt until stiff but not dry and add sugar gradually. Continue beating until stiff and glossy.

Pumpkin pie

3/4 cup sugar	1/2 teaspoon salt
1 teaspoon cinnamon	1 1/2 cups mashed cooked or
3/4 teaspoon mixed spices (nutmeg, mace, cloves, allspice, ginger)	canned pumpkin
1/4 cup dry milk, whole or nonfat	2 eggs, slightly beaten
	1 cup water or fluid milk
	2 tablespoons melted fat
	1 unbaked 9-inch pie shell

For added milk value: Use 1/2 cup milk powder, in place of amount given above.

Combine all dry ingredients.

Add the pumpkin gradually to the dry mixture, stirring until smooth.

Add the eggs, liquid, and fat.

Pour into the pie shell and bake in a hot oven (425° F.) until set—about 35 minutes.

Serve hot or cold, as preferred.

Fruit sherbet

1 package fruit gelatin dessert powder	1 tablespoon grated lemon rind
1 1/2 cups sugar	3 cups water
2 cups boiling water	1 cup dry milk, whole or nonfat
1/3 cup lemon juice	

For added milk value: Use 2 cups milk powder, in place of amount given above.

Mix dessert powder and sugar. Add boiling water and stir until dissolved.

Cool. Add the lemon juice and rind.

Put the 3 cups of water into a large bowl. Add milk powder and beat until smooth.

Stir in the cooled gelatin mixture. Freeze.

Twelve servings.

Vanilla ice cream

$\frac{1}{4}$ cup sugar	1 cup water
1 cup dry milk, whole or nonfat	1 egg, beaten
$\frac{1}{8}$ teaspoon salt	$\frac{1}{2}$ teaspoon vanilla
	1 cup heavy cream, whipped

Add sugar, milk powder, and salt to the water. Beat until smooth.

Cook over low heat or boiling water until thickened; stir constantly to prevent lumping.

Pour part of the mixture into the beaten egg, stirring constantly. Then pour all back into the pan and cook 2 minutes longer.

Chill. Fold in the vanilla and whipped cream. Freeze. Eight servings.

Peach or pineapple ice cream.—Omit vanilla, add $\frac{3}{4}$ cup crushed fresh peaches (sweetened with $\frac{1}{4}$ cup sugar) or canned crushed pineapple.

Banana ice cream.—Add 1 cup mashed bananas (about 3 medium-sized bananas). Fold them in last, just before freezing.

Ice box dessert

1 cup fine graham cracker crumbs	Pinch salt
$\frac{1}{4}$ cup melted fat	$\frac{1}{4}$ cup sugar
1 tablespoon gelatin	2 tablespoons lemon juice
$\frac{3}{4}$ cup water	$\frac{1}{2}$ cup nonfat milk powder
$1\frac{1}{2}$ cups cooked or canned fruit and juice	$\frac{1}{2}$ cup chopped nut meats, if desired

Mix graham cracker crumbs and fat.

Soak gelatin in $\frac{1}{4}$ cup of the water a few minutes. Dissolve over boiling water.

Cut the fruit in pieces. Add salt, sugar, and gelatin. Cool until slightly thickened.

Add lemon juice and milk powder to the remaining $\frac{1}{2}$ cup water. Whip until very stiff.

Fold in fruit mixture and nut meats.

Smooth half the crumbs into the bottom of a piepan or shallow loaf pan. Add filling and top with remaining crumbs. Chill until set.

Six servings.

Peanut butter cookies

1/2 cup fat	1 egg, well beaten
1/2 cup peanut butter	1 cup sifted flour
1/4 teaspoon salt	1/2 teaspoon soda
1/2 teaspoon vanilla	1/2 cup dry milk, whole or nonfat
1/2 cup granulated sugar	2 or 3 tablespoons water or fluid milk, if needed
1/2 cup brown sugar, firmly packed	

For added milk value: Use 1 cup milk powder in place of the amount given above, and add an egg.

Blend fat, peanut butter, salt and vanilla. Gradually add sugar, creaming thoroughly. Add egg and beat well.

Sift flour, soda, and milk powder together three times; stir into first mixture. Add liquid only if mixture crumbles too much to handle.

Roll into balls $\frac{3}{4}$ to 1 inch across.

Place on a lightly greased baking sheet, allowing room to spread. Press with a fork to flatten and make attractive tops.

Bake in a moderate oven (325° to 350° F.) about 15 minutes.

Makes 6 dozen cookies.

Vanilla wafers

2/3 cup fat	1 teaspoon baking powder
2 teaspoons vanilla	1/4 cup dry milk, whole or nonfat
1/2 cup sugar	1/4 teaspoon salt
1 egg	2 tablespoons water or fluid milk
1 1/4 cups sifted flour	

For added milk value: Use 1/2 cup milk powder, in place of amount given above.

Cream fat, vanilla, and sugar thoroughly. Add egg and beat well.

Sift remaining dry ingredients together. Stir into the first mixture with the liquid.

Drop by half teaspoonfuls on a lightly greased baking sheet, allowing room to spread.

Bake in a moderate oven (350° F.) until the edges are golden brown—about 15 minutes.

Makes about 8 dozen small cookies.

Gingerbread

1½ cups sifted flour	¼ teaspoon ground cloves
¼ teaspoon soda	1 egg
1 teaspoon baking powder	⅔ cup water or fluid milk
¼ cup sugar	½ cup dry milk, whole or nonfat
¼ teaspoon salt	½ cup molasses
1 teaspoon ginger	¼ cup melted fat
1 teaspoon cinnamon	

Sift together all dry ingredients but the milk powder.

Break egg into a bowl, add liquid, then the milk powder. Beat until smooth.

Pour liquid mixture into dry ingredients and stir until smooth. Stir in molasses and fat.

Bake in a greased shallow pan (about 8 inches square) in a moderate oven (350° F.) 30 to 40 minutes.

Gingerbread, hot or cold, is good with whipped topping (p. 31), lemon sauce (p.27), or applesauce.

Layer cake

½ cup fat	¼ cup dry milk, whole or nonfat
½ teaspoon vanilla	
1 cup sugar	2½ teaspoons baking powder
2 eggs	
2 cups sifted cake flour (or 1¾ cups all-purpose flour)	¾ cup water or fluid milk
¼ teaspoon salt	½ cup finely chopped nut meats, if desired

For added milk value: Use ½ cup milk powder, in place of amount given above.

Blend fat and vanilla.

Gradually add sugar, creaming until light and fluffy. Add eggs and beat well.

Sift dry ingredients together three times. Add alternately with liquid to creamed mixture, beginning and ending with dry ingredients.

If nuts are used, add them last of all to help prevent them from sinking to bottom of batter during baking.

Pour into two greased 8-inch layer pans.

Bake in a moderately hot oven (375° F.) 25 to 30 minutes.

Confectioners' sugar frosting

$\frac{1}{4}$ cup softened fat	$\frac{1}{8}$ teaspoon salt
$\frac{1}{4}$ cup dry milk, whole or nonfat	$1\frac{1}{4}$ cups confectioners' sugar
2 tablespoons water or fluid milk	$\frac{1}{2}$ teaspoon vanilla

Cream the fat. Add remaining ingredients in order given, mixing well after each addition.

Add more liquid or confectioners' sugar if necessary for desired consistency.

Makes enough for tops of two 8-inch layers.

Orange frosting.—Omit the vanilla and use 1 teaspoon grated orange rind and a bit of lemon juice or rind.

Mock hard sauce

$\frac{1}{3}$ cup table fat	$\frac{1}{2}$ cup confectioners' sugar
$\frac{1}{4}$ teaspoon vanilla	$\frac{1}{2}$ cup dry milk, whole or nonfat
1 tablespoon water	

Cream fat with vanilla and water until fluffy.

Sift sugar and milk powder together twice and blend gradually into creamed mixture. If the sauce seems very stiff add a few drops of water.

Pack into mold and chill until firm. Cut into strips for serving with hot puddings.

Makes about 1 cup.

Lemon sauce

$\frac{1}{2}$ cup sugar	2 tablespoons lemon juice
1 tablespoon cornstarch	1 teaspoon grated lemon rind
Pinch salt	
1 cup boiling water	$\frac{1}{2}$ cup dry milk, whole or nonfat
1 tablespoon fat	

Mix sugar, cornstarch, and salt. Add water.

Cook over boiling water until thickened, stirring constantly. Cover and cook 15 minutes longer, stirring occasionally.

Add fat and cool. Add lemon juice and rind and milk powder. Beat until smooth.

Makes 1 cup.

BEVERAGES

The modern family enjoys flavored drinks—a variety of them. Made with dry milk products, the drinks given here are easy to blend and nourishing. Mothers will find them a good way to add interest to the children's daily milk quota. They are suggested also for those who need to get more milk into their diets.

Peanut butter milk

	<i>1 serving</i>	<i>6 servings</i>
Dry milk, whole or nonfat	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Sugar	1 teaspoon	2 tablespoons
Water	1 cup	6 cups
Peanut butter, fine grind..	1 tablespoon	$\frac{1}{3}$ cup

Add milk powder and sugar to the water and beat, stir, or shake until smooth. Add gradually to the peanut butter and mix well.

Maple milk

	<i>1 serving</i>	<i>6 servings</i>
Dry milk, whole or nonfat.	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Sugar	1 teaspoon	2 tablespoons
Water	1 cup	6 cups
Maple flavoring	$\frac{1}{8}$ teaspoon	$\frac{1}{2}$ teaspoon

Add milk powder and sugar to water and flavoring. Beat, stir, or shake until smooth.

Spiced milk

	<i>1 serving</i>	<i>6 servings</i>
Dry milk, whole or nonfat.	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Cinnamon	$\frac{1}{8}$ teaspoon	$\frac{1}{2}$ teaspoon
Nutmeg	$\frac{1}{8}$ teaspoon	$\frac{1}{2}$ teaspoon
Sugar	$\frac{1}{2}$ teaspoon	1 tablespoon
Salt	Pinch	$\frac{1}{4}$ teaspoon
Water	1 cup	6 cups

Add dry ingredients to water and beat, stir, or shake until smooth.

With spice extract.—Omit cinnamon and nutmeg and use $\frac{1}{8}$ teaspoon spice extract for 1 serving, $\frac{1}{2}$ teaspoon for 6 servings.

Molasses milk

	<i>1 serving</i>	<i>6 servings</i>
Dry milk, whole or nonfat.	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Salt	Pinch	$\frac{1}{4}$ teaspoon
Water	1 cup	6 cups
Molasses	1 tablespoon	$\frac{1}{3}$ cup

Mix milk powder and salt; mix water with molasses. Add dry ingredients to liquid and beat, stir, or shake until smooth.

Eggnog

	<i>1 serving</i>	<i>6 servings</i>
Eggs	1	6
Water or fluid milk.....	1 cup	$1\frac{1}{2}$ quarts
Dry milk, whole or nonfat.	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Sugar	1 tablespoon	$\frac{1}{3}$ cup
Salt	Pinch	$\frac{1}{4}$ teaspoon
Vanilla or grated orange or lemon rind	$\frac{1}{4}$ teaspoon	$1\frac{1}{2}$ teaspoons

Break eggs into a bowl. Add water or fluid milk, then milk powder, sugar, and salt. Beat until smooth. Add flavoring. Chill before serving. Sprinkle each serving with nutmeg if desired.

Tomato juice appetizer

	<i>1 serving</i>	<i>6 servings</i>
Tomato juice	$\frac{1}{4}$ cup	$1\frac{1}{2}$ cups
Water	$\frac{1}{2}$ cup	3 cups
Onion juice	Few drops	$\frac{1}{2}$ teaspoon
Lemon juice	Few drops	$\frac{1}{2}$ teaspoon
Salt	$\frac{1}{8}$ teaspoon	1 teaspoon
Dry milk, whole or nonfat .	2 tablespoons	$\frac{3}{4}$ cup

Combine tomato juice, water, and seasonings in a saucepan. A few drops tabasco sauce may be added, if desired. Add milk powder and beat until smooth.

Heat quickly until just hot. Avoid overheating.

Cocoa

	1 serving	6 servings
Cocoa	2 teaspoons	4 tablespoons
Sugar	1½ tablespoon	3 tablespoons
Salt	Pinch	1/8 teaspoon
Water	1/4 cup	1 cup
Water or fluid milk.....	1/2 cup	3 cups
Dry milk, whole or nonfat .	3 tablespoons	1 cup
Vanilla	Few drops	1/2 teaspoon

Combine cocoa, sugar, and salt. Stir in the smaller amount of water.

Boil several minutes, stirring constantly.

Remove from heat and add water or fluid milk and milk powder. Beat until smooth.

Heat thoroughly. Add vanilla.

Hot chocolate.—For six servings, use 2 squares of chocolate in place of the cocoa. Shave or grate the chocolate.

MILK POWDER SPECIALS

Some things that milk-in-a-bottle can't do are easy for dry milk products. You can have extra milk in cooked cereals without extra liquid . . . a dessert topping much lower in calories than whipped cream . . . a milk-rich candy without long cooking. This means added calcium, vitamins, and protein where you least expect to find them.

Cooked breakfast cereal

Put into a saucepan or top of double boiler enough uncooked breakfast cereal to make six servings when cooked. Add ¼ to ½ cup milk powder and mix well.

Add water or fluid milk and salt in the proportions indicated on the package. Stir until smooth. Cook over low heat or boiling water until done, stirring often.

Serve as usual.

Whipped topping

1/2 cup water	2 tablespoons sugar
1 tablespoon lemon juice	1/4 teaspoon vanilla
1/2 cup <i>nonfat</i> milk powder	

Put water and lemon juice into a bowl and add the nonfat milk powder.

Beat with a rotary beater until stiff. Beat in sugar and vanilla.

Chill and use as you would whipped cream.

Makes about 2½ cups topping.

Tutti-frutti

1 cup sugar	1/4 cup chopped candied or well drained maraschino cherries
1/2 cup water	
1/4 teaspoon salt	
1/2 tablespoon corn sirup	1/4 cup broken nut meats
1 teaspoon table fat	1/2 cup dry milk, whole or nonfat
1/4 cup raisins	1/2 teaspoon vanilla

Combine sugar, water, salt, and corn sirup in a saucepan. Boil until the sirup forms a firm ball in cold water. If you use a candy thermometer, cook the sirup to 248° F.

Add fat, fruit, and nuts, and cool to lukewarm without stirring.

Add milk powder and vanilla. Stir until thoroughly mixed and creamy.

Quickly turn the candy into a greased pan and when firm enough cut in squares.

INDEX TO RECIPES

	Page
Soups	6
Cream of potato soup	6
Fish chowder	6
Canned or packaged soup, cream style ...	7
Main dishes	7
Ham shortcake	7
Meat loaf	8
Meat and vegetable stew	8
Beef or lamb patties	9
Puffy Spanish omelet	9
Scrambled eggs	10
Creamed eggs	10
Cheese fondue	10
Welsh rabbit	11
Macaroni, cheese, and eggs	11
Sauces	12
White sauce	12
Tomato sauce or gravy	13
Vegetable dishes	13
Vegetable croquettes	13
Asparagus scallop	14
Corn fritters	14
Corn pudding	15
Creamed vegetables	15
Potato cakes	16
Breads	16
Muffins	16
Biscuits	17
Waffles	17
Griddlecakes	18
Dry mixes	18
Biscuit mix	18
Quick bread mix	19
Chocolate pudding mix	20
Desserts and dessert sauces	20
Prune whip	20
Maple rice pudding	21
Chocolate pudding	21
Baked custards	22
Banana cream pie	22
Meringue	23
Pumpkin pie	23
Fruit sherbet	23
Vanilla ice cream	24
Ice box dessert	24
Peanut butter cookies	25
Vanilla wafers	25
Gingerbread	26
Layer cake	26
Confectioners' sugar frosting	27
Mock hard sauce	27
Lemon sauce	27
Beverages	28
Peanut butter milk	28
Maple milk	28
Spiced milk	28
Molasses milk	29
Eggnog	29
Tomato juice appetizer	29
Cocoa	30
Milk powder specials	30
Cooked breakfast cereal	30
Whipped topping	31
Tutti-frutti	31